disservice by further complicating their lives with expensive and unusual treatments of questionable value.

John Dudley, MD, FRCPC
Community Psychiatry Service
St. Joseph's Hospital
Hamilton, Ont.

The ultimate angel

In a recent issue of *CMAJ* (1985; 133) there are two items of related interest. W. André Lafrance, MD (pages 1107 to 1108) addresses abortion, and William E. Seidelman, MD (pages 1169 to 1171) suggests that the "angel of death", Joseph Mengele, PhD, MD, was not an aberration. Seidelman weaves a web of association that enmeshes a number of senior physician-academicians.

It appears that we physicians have become solvers of problems, angels. A logical extension of this reasoning is strong physician support for the use of nuclear weapons, for the latter will be the ultimate angel.

William Gee, MD
Department of Surgery
Lehigh Valley Hospital Center
Allentown, Pennsylvania

Reuse of permanent cardiac pacemakers

The letter by Dr. G.F.O. Tyers (*Can Med Assoc J* 1985; 133: 1195) about our article (*ibid*: 279–283) raised several interesting issues.

Dr. Tyers suggested that reused pacemakers should not be reserved for high-risk patients. We agree that new and recovered devices are technically similar. In fact, some of the recovered devices that were implanted in other institutions were technically superior to the standard pacemakers we are currently using. The only reason to select high-risk patients is that the lifetime guarantees for pacemakers apply to the original recipient. If recovered pacemakers are reimplanted in patients who will need a second device, the hospital will ultimately have to purchase the device for the patient; hence, no saving will be made.

We still prefer to use a consent form that informs the patient that his or her device is recovered. We feel this is a safer legal practice. We have a high level of acceptance for recovered devices from our patients, and as a result we have not incurred problems in the reimplantation of recovered pacemakers. Certainly, though, as the reuse of pacemakers becomes more frequent it may no longer be necessary to provide a specific consent for reuse.

We thank Tyers for his constructive comments.

M.D. Rosengarten, MD
Montreal General Hospital
Montreal, PQ

Dr. Tyers' letter on the reuse of permanent cardiac pacemakers invites further comment.

Since the sale of a cardiac pacemaker by the manufacturer is subject to the new device requirements of the medical devices regulations of the Food and Drugs Act, the manufacturer is required to submit evidence of the safety and effectiveness of the device and receive a notice of compliance before selling it. Furthermore, cardiac pacemakers must conform to the prescribed standard in schedule III of these regulations.

The article by Rosengarten and colleagues indicated that implanted pacemakers are considered the property of the patients or their heirs. Thus, when a pacemaker is recovered, ownership is transferred, and the new owner (e.g., hospital) must meet the new device requirements before reimplantation. In other words, the hospital would be considered the "manufacturer" and must submit evidence of the safety and effectiveness of the recovered pacemaker and receive a notice of compliance. Furthermore, the used and refurbished pacemaker must meet the requirements of the currently prescribed standard.

Surely the patient is entitled to the same safeguards and level of health care in the case of a refurbished pacemaker as are applied to the original device.

A.J. Liston
Assistant deputy minister
Health Protection Branch
Department of National Health
and Welfare
Ottawa, Ont.

[Copies of "The Reuse of Disposables: an Information Report" and "Réutilisation des articles jetables", 1985 publications by the Sub-committee on Special Services in Hospitals, Health Services Directorate, Health Services and Promotion Branch, Department of National Health and Welfare, are available by writing to Mr. D.F. Moffatt, Chairman, Sub-committee on Institutional Program Guidelines, Health Services Directorate, Health Services and Promotion Branch, Department of National Health and Welfare, Tunney's Pasture, Ottawa, Ont. K1A 1B4.—Ed.]

Mengele and "eugenics"

Having an Auschwitz tatoo on my forearm and having worked under Dr. Mengele, I feel obliged to reply to Dr. Seidelman's valuable article (*Can Med Assoc J* 1985; 133: 1169–1171).

I congratulate Seidelman for pointing out the longstanding racist policies of the United States and Canada that were carried out for decades under the camouflage of eugenics in the area of immigration and by setting a precedent for and condoning, even participating in, human denigration.

Most of the German medical community, especially the psychiatrists working under the

For prescribing information see page 544 →

Schutzstaffel, silently collaborated. Many actively participated in the "eugenic" destruction of almost 300 000 patients, some of whom were German, setting the stage for the Holocaust.

However, Mengele must *not* be presented as a victim of the German army's legitimized systems: no, he was a cruel sadist and a mass murderer, an "angel of death" indeed, whose name must go down in infamy forever.

Rudolph G. Roden, MD, PhD
Professor
Department of Psychiatry
and Behavioral Sciences
University of Texas Medical Branch
Galveston, Tex.

Visceral leishmaniasis and Chagas' disease: not the same

In his article on Brazil's Institute of Tropical Medicine (*Can Med Assoc J* 1985; 133: 1049–1055, 1059) Dr. Brian Goldman says that visceral leishmaniasis is synonymous with Chagas' disease. Although these diseases have a similar presentation (one will often figure in the differential diagnosis of the other), are both borne by insect vectors and have the same animal reservoir, the dog, they are not the same disease. Visceral leishmaniasis is caused by *Leishmania donovani*. Chagas' disease, on the other hand, is caused by *Trypanosoma cruzi*.

Visceral leishmaniasis, or kala-azar, resembles Chagas' disease in some clinical respects (intermittent fever, hepatomegaly, splenomegaly), but in the former the spleen is much larger, there are no central nervous system symptoms, and the cardiac symptoms usually appear only after anemia becomes severe. Chronic infection, usually myocardial, in adults is not characteristic, as it is in Chagas' disease.

Some histologic confusion may initially occur in the attempt to make a diagnosis, for in the vertebrate host the trypanosomes assume a leishmanial form before entering the blood stream as trypanosomes and later invading the heart and other tissues.

Chagas may have been involved in the discovery of leishmaniasis, because in some of the literature *L. chagasi* is synonymous with *L. donovani*.

Patrick F. Doorly, MD
Ste. 206, 49 High St.
Barrie, Ont.

AIDS and taurolin

More than 10 000 cases of acquired immune deficiency syndrome (AIDS) have been reported in the United States, and the mortality rate for the cases diagnosed before January 1983 was 75%.[1] AIDS and persistent generalized lymphadenopathy are thought to be caused by a retrovirus called either lymphadenopathy-associated virus (LAV) or human T-lymphotropic virus type III (HTLV-III). The identification of this virus has permitted the search for agents useful in the prevention and treatment of AIDS. Suramin sodium, ribavirin and HPA 23 have been shown to be active in vitro against this virus and have been used in the treatment of patients with AIDS.[2-4]

Many disinfectants, such as sodium hypochlorite, glutaraldehyde, formaldehyde (0.1% formalin), ethanol and β-propionolactone, also deactivate the HTLV-III/LAV virus.[5] The effect of formaldehyde is not as good as that of the other disinfectants but is enhanced by the addition of β-propionolactone.

Taurolin is a formaldehyde-releasing compound that consists of two molecules of the naturally occurring amino acid taurine combined with three molecules of formaldehyde.[6] This compound has been shown to have antibacterial, antiendotoxin and antifungal properties at low concentrations.[6,7] Clinical studies in Europe, where it has been used for several years, have demonstrated its effectiveness in treating peritonitis,[8] and the compound is described as being neither toxic nor irritating.[9]

In view of the in-vitro sensitivity of the HTLV-III/LAV virus to formaldehyde and the fact that the activity of taurolin is related to formaldehyde, taurolin should be tested to determine if it also deactivates this virus in vitro. If it does, it should be evaluated for use alone or with other agents in patients with AIDS.

Paul Bayardelle, MD
Department of Microbiology
Notre-Dame Hospital
Montreal, PQ

References

1. Acquired immunodeficiency syndrome. United States. *MMWR* 1985; 34: 245–248
2. Mitsuya H, Popovic M, Yarchoan R et al: Suramin protection of T-cells in vitro against infectivity and cytopathic effect of HTLV III. *Science* 1984; 226: 172–174
3. McCormick JB, Getchell J, Mitchell S et al: Ribavirin suppresses replication of lymphadenopathy associated virus in cultures of human adult T-lymphocytes. *Lancet* 1984; 2: 1367–1369
4. Rozenbaum W, Dormont D, Spire B et al: Antimoniotungstate (HPA 23) treatment of three patients with AIDS and one with prodrome [C]. *Lancet* 1985; 1: 450–451
5. Spire B, Barré-Sinoussi F, Montagnier L et al: Inactivation of lymphadenopathy associated virus by chemical disinfectants. *Lancet* 1984; 2: 899–901
6. Browne MK, Leslie GB, Pfirrmann RW: Taurolin, a new chemotherapeutic agent. *J Appl Bacteriol* 1976; 41: 363–368
7. Pfirrmann RW, Leslie G: The antiendotoxin activity of Taurolin in experimental animals. *J Appl Bacteriol* 1979; 46: 97–102
8. Brown MK: The treatment of peritonitis by an antiseptic - taurolin. *Pharmatherapeutica* 1981; 2: 517–522
9. Myers E, Allwood MC, Gisley MJ et al: The relationship between structure and activity of taurolin. *J Appl Bacteriol* 1980; 48: 89–96

For prescribing information see page 544 →